

AMENDMENTS TO THE CLAIMS

The following Listing of Claims replaces all previous Listings of Claims.

Listing of Claims:

Claim 1. (Currently amended) A process for preparing a ketone comprising the reaction of ~~cyclododecatriene~~ 1,5,9-cyclododecatriene with dinitrogen monoxide to obtain cyclododecadienone.

Claim 2. (Original) A process as claimed in claim 1, wherein the dinitrogen monoxide source is at least one dinitrogen monoxide-containing offgas of at least one industrial process.

Claim 3. (Original) A process as claimed in claim 2, wherein the dinitrogen monoxide source is the offgas of an adipic acid plant and/or of a dodecanedioic acid plant and/or of a hydroxylamine plant and/or of a nitric acid plant operated with the offgas of an adipic acid plant and/or of a dodecanedioic acid plant and/or of a hydroxylamine plant.

Claim 4. (Currently amended) A process as claimed in claim 1, wherein ~~cyclododecatriene~~ the 1,5,9-cyclododecatriene is reacted with a gas mixture containing from 20 to 99.9% by weight of dinitrogen monoxide, based on the total weight of the gas mixture.

Claim 5. (Previously presented) A process as claimed in claim 1, wherein the dinitrogen monoxide or the gas mixture containing dinitrogen monoxide is used in liquid form.

Claim 6. (Previously presented) A process as claimed in claim 1, wherein the reaction is carried out at a temperature in the range from 140 to 350°C and a pressure in the range from 1 to 1000 bar.

Claim 7. (Currently amended) A process as claimed in claim 1, wherein the reaction has a conversion of ~~cyclododecatriene~~ 1,5,9-cyclododecatriene in the range from 1 to 80% at a selectivity based on cyclododecadienone of at least 90%.

Claim 8. (Currently amended) A process as claimed in claim 1, wherein the ~~eyelododecatriene~~ 1,5,9-cyclododecatriene is cis,trans,trans-1,5,9-cyclododecatriene and is reacted in (ii) with dinitrogen monoxide to give cyclododeca-4,8-dienone.

Claim 9. (Currently amended) A process as claimed in claim 1, wherein the cyclododecadienone obtained from the reaction of ~~eyelododecatriene~~ 1,5,9-cyclododecatriene with dinitrogen monoxide is hydrogenated to obtain cyclododecanone.

Claim 10. (Original): A process as claimed in claim 9, wherein the hydrogenation is carried out in the presence of a hydrogenation catalyst at a temperature in the range from 0 to 250°C and a pressure in the range from 1 to 325 bar.

Claim 11. (Currently amended) A process for preparing cyclododecanone, comprising the steps (I) and (II)

(I) reacting ~~eyelododecatriene~~ 1,5,9-cyclododecatriene with dinitrogen monoxide to obtain cyclododecadienone;

(II) hydrogenating the cyclododecadienone obtained in (I) to obtain cyclododecanone.

Claim 12. (Original) A process as claimed in claim 11, wherein the dinitrogen monoxide source used is at least one offgas comprising dinitrogen monoxide from at least one industrial process.

Claim 13. (Original) A process as claimed in claim 12, wherein the dinitrogen monoxide source is the offgas of an adipic acid plant and/or of a dodecanedioic acid plant and/or of a hydroxylamine plant and/or of a nitric acid plant operated with the offgas of an adipic acid plant and/or of a dodecanedioic acid plant and/or of a hydroxylamine plant.

Claim 14. (Currently amended) A process as claimed in claim 11, wherein ~~eyelododecatriene~~ the 1,5,9-cyclododecatriene is reacted with a gas mixture containing from 20 to 99.9% by weight of dinitrogen monoxide, based on the total weight of the gas mixture.

Claim 15. (Previously presented) A process as claimed in claim 11, wherein the dinitrogen monoxide or the gas mixture containing dinitrogen monoxide is used in liquid form.

Claim 16. (Previously presented) A process as claimed in claim 11, wherein the reaction in (I) is carried out at a temperature in the range from 140 to 350°C and a pressure in the range from 1 to 1000 bar.

Claim 17. (Currently amended) A process as claimed in claim 11, wherein the reaction in (I) has a conversion of ~~eyelododecatriene~~ 1,5,9-cyclododecatriene in the range from 1 to 80% at a selectivity based on cyclododecadienone of at least 90%.

Claim 18. (Currently amended) A process as claimed in claim 11, wherein the ~~eyelododecatriene~~ 1,5,9-cyclododecatriene used is cis,trans,trans-1,5,9-cyclododecatriene and is reacted in (I) with dinitrogen monoxide to give cyclododeca-4,8-dienone.

Claim 19. (Previously presented) A process as claimed in claim 11, wherein the hydrogenation in (II) is carried out in the presence of a heterogeneous hydrogenation catalyst at a temperature in the range from 0 to 250°C and a pressure in the range from 1 to 325 bar.

Claim 20. (Currently amended) A process for preparing a ketone comprising the reaction of ~~eyelododecatriene~~ 1,5,9-cyclododecatriene with dinitrogen monoxide to obtain cyclododecadienone wherein the dinitrogen monoxide source is the offgas of an adipic acid plant and/or of a dodecanedioic acid plant and/or of a hydroxylamine plant and/or of a nitric acid plant operated with the offgas of an adipic acid plant and/or of a dodecanedioic acid plant and/or of a hydroxylamine plant, wherein the dinitrogen monoxide or the gas mixture containing dinitrogen monoxide is used in liquid form, and wherein the ~~eyelododecatriene~~ 1,5,9-cyclododecatriene is cis,trans,trans-1,5,9-cyclododecatriene and is reacted in (ii) with dinitrogen monoxide to give cyclododeca-4,8-dienone.